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10/520,788	01/11/2005	Stephen Roland Day	021500-134	2434

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EXAMINER	
RALIS, STEPHEN J	
ART UNIT	PAPER NUMBER
3742	

NOTIFICATION DATE	DELIVERY MODE
08/20/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/520,788	DAY, STEPHEN ROLAND	
	Examiner	Art Unit	
	STEPHEN J. RALIS	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Applicant is respectfully requested to provide a location within the disclosure to support any further amendments to the claims due to when filing an amendment an applicant should show support in the original disclosure for new or amended claims. See MPEP § 714.02 and § 2163.06 ("Applicant should specifically point out the support for any amendments made to the disclosure.").

Response to Amendment/Arguments

3. Applicant's arguments filed 25 April 2008 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim19 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966). In the instant case, the step of "utilizing the laminated glazing panel…." Does not further limit "Use of a glazing panel…" as recited. (see MPEP § 173.05(q)). Also, single claim

which claims both an apparatus and the method steps of using is indefinite under 35 U.S.C. 112, second paragraph. (see MPEP § 173.05(p)).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 19 provides for the use of "Use of a laminated glazing panel as claimed in claim 1", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. A single claim which claims both an apparatus and the method steps of using is indefinite under 35 U.S.C. 112, second paragraph. (see MPEP § 173.05(p)).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 2, 9-11, 13, 14, 16, 19, 21, 23, 24, 26, 27, 29, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldridge (U.S. Patent No. 3,317,906) in view of Naruke et al. (U.S. Patent No. 5,193,895).

Baldridge discloses a laminated glazing panel and process for the production thereof comprising two glass plies, a plastic ply and one or more lights which are laminated between the glass plies (column 2, lines 16-39, column 3, lines 7-51; see Figure 1) with the lamination occurring at a temperature of 200°F – 325°F (93.33°C – 162.78°C).

With respect to the limitations of claims 9-11 and 16, Baldridge further disclose indicia on at least one ply (column 3, lines 41-60); a cut-out in the plastic ply to aid successful lamination of larger components in the glazing panel (26; column 3, lines 27-29); multiple plastic plies may be used to laminate the one or more light indicators in the glazing panel (column 3, lines 29-30).

With respect to the limitations of claims 21 and 23, Baldridge disclose the interlayers being more preferably polyvinylbutyral (PVB) (column 3, lines 49-60).

With further respect to the limitations of claim 16 and a cut-out area being prepared in the plastic ply to receive a circuit board…,positioning the circuit board in the cut out area, in the plastic ply to aid successful lamination of larger components in the glazing panel, Baldridge discloses a cut-out in the plastic ply to aid successful

lamination of larger components in the glazing panel (26; column 3, lines 27-29). Since Baldridge discloses the incorporation of a larger component into the plastic ply of a laminated glazing panel by provided a cut-out area for the larger component in the plastic ply, to provide a cut-out area being prepared in the plastic ply to receive a circuit board…,positioning the circuit board in the cut out area would have been a mere engineering expediency as Baldridge clearly teaches the use cut-out in the plastic ply to aid successful lamination of larger components in the glazing panel.

Baldridge discloses all of the limitations of the claimed invention, as previously set forth, except for the lights to be light emitting diodes and light emitting diodes being mounted on a circuit board.

However, indicator light emitting diodes mounted on circuit boards is known in the art. Naruke et al., for example, teach a light body comprising light emitting elements (5) mounted on a circuit board (6; a circuit board inherently has a substrate and a conductive layer; Abstract) residing in a body of synthetic resin (synthetic resin predominantly being of the plastics family). Naruke et al. further teach the advantage of using such a configuration provides(1) a reduction in the power consumption of traditional lamp elements, thereby increasing the prolonged life of a power source (column 5, lines 44-47); and (2) the advantage that a lighting system may conform to the shape and size of the fitting face of the desired surface, thereby reducing the overall cost of manufacturing (column 5, lines 51-59). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify indicator lights of Baldridge with the light emitting diodes mounted on circuit boards of Naruke et al. to

provide (1) a reduction in the power consumption of traditional lamp elements, thereby increasing the prolonged life of a power source; and (2) the advantage that a lighting system may conform to the shape and size of the fitting face of the desired surface, thereby reducing the overall cost of manufacturing.

With respect to the limitation of claims 1 and 16 and the glass plies and the plastic ply with the one or more light emitting diodes being laminated at a temperature of about 100°C to 150°C", Baldridge explicitly discloses the glass panels with the interlayer and instruments being laminated and heated to a temperature of 200°F – 325°F (93.33°C – 162.78°C). Clearly, Baldridge discloses a temperature of lamination that meets the limitations as set forth above. Naruke et al. teach the utilization a light body comprising light emitting elements (5) mounted on a circuit board (6; a circuit board inherently has a substrate and a conductive layer) residing in a body of synthetic resin (synthetic resin predominantly being of the plastics family), Naruke et al. further teach the advantage of such a configuration as being to provide (1) a reduction in the power consumption of traditional lamp elements, thereby increasing the prolonged life of a power source; and (2) the advantage that a lighting system may conform to the shape and size of the fitting face of the desired surface, thereby reducing the overall cost of manufacturing. Therefore since Baldridge discloses an laminated glazing panel and method of production for a vehicle window in the recited temperature range and Naruke et al. teach the utilization of light emitting elements mounted on a circuit board and motivation to combine, Baldridge in view of Naruke et al. fully meets "wherein the glass

plies and the plastic ply with the one or more light emitting diodes are laminated at a temperature of at least 100°C" given its broadest reasonable interpretation.

In addition, regarding the last two lines of claim 1 and lines 4-6 of claim 31 (describing how the laminated glazing panel is made, i.e. laminated at a temperature of about 100°C to 150°C), the limitation merely recites a product by process limitation. It is well settled that reciting how a product is made does not further limit the structure of the product itself. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted.)

With respect to the limitations of claims 24 and 26, Baldridge clearly discloses the glass panels with the interlayer and instruments being laminated and heated to a temperature of 200°F – 325°F (93.33°C – 162.78°C) at a pressure of 150 to 225 p.s.i. (10.2 – 15.31 atmosphere). Naruke et al. teach the utilization a light body comprising light emitting elements (5) mounted on a circuit board (6; a circuit board inherently has a substrate and a conductive layer) residing in a body of synthetic resin (synthetic resin predominantly being of the plastics family), Naruke et al. further teach the advantage of such a configuration as being to provide (1) a reduction in the power consumption of traditional lamp elements, thereby increasing the prolonged life of a power source; and

(2) the advantage that a lighting system may conform to the shape and size of the fitting face of the desired surface, thereby reducing the overall cost of manufacturing. Therefore since Baldridge discloses an laminated glazing panel and method of production for a vehicle window in the range of pressures recited above and Naruke et al. teach the utilization of light emitting elements mounted on a circuit board and motivation to combine, Baldridge in view of Naruke et al. fully meets "wherein the glass plies and the plastic ply with the one or more light emitting diodes are laminated at a pressure of about 5 to 15 atmospheres" given its broadest reasonable interpretation.

With respect to the limitations of claim 2 and the circuit board being *flexible*, Naruke et al. teach the a plurality of chip-type light emitting elements being mounted on a *flexible* printed circuit board (Abstract).

With respect to the limitation of claim 13, Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the plastic ply having a thickness before lamination of 2 mm or less. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the plastic ply having a thickness before lamination of 2 mm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

With respect to the limitations of claims 14, 27 and 29, Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the thickness of the panel being equal to or less than 8 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the

thickness of the panel being 8 mm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

With respect to the limitation of claim 30, Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the thickness of the panel being equal to or less than 8 mm and the light emitting diode device being less than 0.8 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the thickness of the panel being 8 mm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Furthermore since Baldridge in view of Naruke et al. comprises the laminated light emitting diode device within the window, the light emitting diode device would inherently be less than the laminated glazing panel thickness and it would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the thickness of light emitting diode device being 0.8 mm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

With respect to the limitations of claim 16, and to the degree it can be argued that the prior art of reference combination does not teach a three ply composite plastic ply as recited, the additional rejection is provided as set forth below:

The Baldridge-Naruke laminating glazing panel combination discloses all of the limitations, as previously set forth, except for providing a cut-out area in one plastic ply of a pair of plastic plies and joining a further plastic ply to the paired plastic plies to create a composite ply, Baldridge discloses a cut-out in the plastic ply to aid successful lamination of larger components in the glazing panel (26; column 3, lines 27-29). Baldridge further discloses the plastic inter layer being "interlayers" (column 3, lines 29-31, 49-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a third polyvinylbutyral layer in addition to the two polyvinylbutyral layers to create a composite ply, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art.

11. Claims 3-5, 7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldridge (U.S. Patent No. 3,317,906) in view of Naruke et al. (U.S. Patent No. 5,193,895) as applied to claims 1, 2, 9-11, 13, 14, 16, 19, 21, 23, 24, 26, 27, 29, 30 and 32 above, and further in view of Fraivillig (U.S. Patent No. 6.208.031).

Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the substrate comprising polyimide; the substrate comprising polyester; and the conductive layer being a metal foil which is adhered to the substrate; the flexible circuit board further comprising a rigid layer.

However, flexible circuit boards having a substrate comprising polyimide or polyester, a conductive layer being a metal foil which is adhered to the substrate, and a rigid layer, as described by Fraivillig, is known in the art. Fraivillig teaches a flexible

circuit board comprising a conductive foil layer that is adhered to a flexible base film that is typically a polyimide or polyester film (column 1, lines 26-31; column 3, lines 6-10; column 4, lines 22-31) to provide a flexible circuit that is not limited by the typical thickness of traditional dielectric films (column 2, lines 1-4), thereby producing a thinner more desirable a flexible circuit board. Fraivillig further teaches that the flexible circuit board may comprise a rigid layer (the addition of a thermoset would inherently create a harder/rigid layer; column 4, lines 27-31). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Baldridge-Naruke laminating glazing panel combination with the flexible circuit board substrate and conductive layers of Fraivillig to provide a flexible circuit that is not limited by the typical thickness of traditional dielectric films, thereby producing a thinner, more desirable flexible circuit board.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldridge (U.S. Patent No. 3,317,906) in view of Naruke et al. (U.S. Patent No. 5,193,895) as applied to claims 1, 2, 9-11, 13, 14, 16, 19, 21, 23, 24, 26, 27, 29, 30 and 32 above, and further in view of Ladd (U.S. Patent No. 2001/0055458).

Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the conductive layer being conductive ink which is in direct contact with the substrate.

However, creating a light emitting display using a conductive ink as the conductive layer, as described by Ladd, is known in the art. Ladd teaches a broad

surface (12) of sheet (10) of electrically insulating material having grooves 14 that are filled with a highly electrically conductive ink to provide a display that is uniformly constructed, efficient to manufacture without getting the typical defects, thereby reducing typical scrap costs of manufacturing the display devices. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Baldridge-Naruke laminating glazing panel combination with conductive ink layer of the Ladd light emitting display device to provide a display that is uniformly constructed, efficient to manufacture without getting the typical defects, thereby reducing typical scrap costs of manufacturing the display devices.

13. Claims 8, 12, 15, 17, 18, 22, 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldridge (U.S. Patent No. 3,317,906) in view of Naruke et al. (U.S. Patent No. 5,193,895) as applied to claims 1, 2, 9-11, 13, 14, 16, 19, 21, 23, 24, 26, 27, 29, 30 and 32 above, and further in view of Leclercq (U.S. Patent No. 4,968,895).

Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the circuit board extending outwardly beyond an edge of the glazing panel to enable connection of the circuit board to a power supply; and the light indicators to be coated with a compatible material of the plastic ply.

However, flexible circuit board extending outwardly beyond an edge of the glazing panel to enable connection of the circuit board to a power supply and the light indicators to be coated with a compatible material of the plastic ply, as described by

Leclercq, is known in the art. Leclercq teaches a diode (1) laminated between to glass plies (6) with a plastic ply (5) between. Leclercq also teaches a flexible circuit board (4) having conductors (3) embedded within a layer of plastic (column 2, lines 58-61; see Figure 1) for connecting to a power supply to provide the conductors with the flexibility needed during installation of the diode device, thereby simplifying the manufacturing process. Leclercq further teaches the diode (1) within the laminated glass being coated with a compatible material of the plastic ply within the laminated glass (column 2, lines 46-49) to provide stiffness adequate to avoid any deformation when it is laminated in the glass, thereby increasing the operational longevity of the device. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the flexible circuit board of the Baldridge-Naruke laminating glazing panel combination with the extension from the glass structure to connect to a power supply of Leclercq to provide the conductors with the flexibility needed during installation of the diode device, thereby simplifying the manufacturing process. It would have further been obvious to one of ordinary skill in the art at the time of the invention was made to modify the plastic/synthetic resin covering of the light emitting element of Baldridge-Naruke laminating glazing panel combination with the device within the laminated glass being coated with a compatible material of the plastic ply within the laminated glass of Leclercq to provide stiffness adequate to avoid any deformation when it is laminated in the glass, thereby increasing the operational longevity of the device.

With respect to the limitation of claims 12, 15 and 17 and the circuit board and one or more light emitting diodes together being at least partially coated with a material

compatible with the material of the plastic ply, Leclercq clearly teaches *a diode* (1) being mounted on a circuit board (4) with the circuit board (4) and diode (1) being placed between two laminated glazing panels (glass sheets 6) with a plastic interlayer in between (see Figures 1, 3). A diode is an electric circuit that allow current to flow in one direction. Leclercq teaches a diode on a circuit board that senses light and Naruke et al. teach a diode on a circuit board that emits light. Leclercq clearly teach the device (with a diode) being placed between two glass sheets (6) and plastic interlayer (5) in between and laminated together. Leclercq further teaches the diode (1) and the within the laminated glass being partially coated with a compatible material of the plastic ply within the laminated glass (column 2, lines 46-49; see Figure 1). Figure 1 clearly teaches the diode (1) and the circuit being partially coated with a compatible material of the plastic ply. Therefore, the Baldridge-Naruke combination in view of Leclercq would inherently have the light emitting diode and the circuit board partially coated with a compatible plastic ply.

With respect to the limitations of claim 18, the Baldridge-Naruke-Leclercq process for the production of a laminated glazing panel combination discloses all of the limitations, as previously set forth, except for the overall thickness of the coated circuit board on which one or more light emitting elements are mounted being comparable with the thickness of the plastic ply in which it is positioned. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the overall thickness of the coated circuit board on which one or more light emitting elements are mounted being comparable with the thickness of the plastic ply in which it is positioned,

since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

With respect to the limitations of claim 22, With respect to the limitations of claims 21 and 23, Baldridge disclose the interlayers being more preferably polyvinylbutyral (PVB) (column 3, lines 49-60).

With respect to the limitations of claim 25, Baldridge clearly discloses the glass panels with the interlayer and instruments being laminated and heated to a temperature of 200°F – 325°F (93.33°C – 162.78°C) at a pressure of 150 to 225 p.s.i. (10.2 – 15.31 atmosphere). Naruke et al. teach the utilization a light body comprising light emitting elements (5) mounted on a circuit board (6; a circuit board inherently has a substrate and a conductive layer) residing in a body of synthetic resin (synthetic resin predominantly being of the plastics family), Naruke et al. further teach the advantage of such a configuration as being to provide (1) a reduction in the power consumption of traditional lamp elements, thereby increasing the prolonged life of a power source; and (2) the advantage that a lighting system may conform to the shape and size of the fitting face of the desired surface, thereby reducing the overall cost of manufacturing. Therefore since Baldridge discloses an laminated glazing panel and method of production for a vehicle window and Naruke et al. teach the utilization of light emitting elements mounted on a circuit board and motivation to combine, Baldridge, in view of Naruke et al. and fully meets “wherein the glass plies and the plastic ply with the one or more light emitting diodes are laminated/performed at a pressure of at least 5 atmospheres” given its broadest reasonable interpretation.

With respect to the limitations of claim 28, the Baldridge-Naruke-Leclercq laminating glazing panel combination discloses all of the limitations, as previously set forth, except for the thickness of the panel being equal to or less than 8 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the thickness of the panel being 8 mm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

14. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldridge (U.S. Patent No. 3,317,906) in view of Naruke et al. (U.S. Patent No. 5,193,895) as applied to claims 1, 2, 9-11, 13, 14, 16, 19, 21, 23, 24, 26, 27, 29, 30 and 32 above, and further in view of Solow (U.S. Patent No. 4,761,720).

Baldridge in view of Naruke et al. discloses all of the limitations, as previously set forth, except for the thickness of the light emitting diode device being less than thickness of the plastic ply.

However, a thickness of the light emitting diode device being less than thickness of the plastic ply is known in the art. Solow, for example, teaches a plurality of LED chips and connecting wires being embedded in plastic (Abstract) with the thickness of the plastic being slightly greater than the LED chip (column 3, lines 33-52). Solow further teaches the advantage of such a configuration provides a quite thin a flexible product that is waterproof and safe, thereby increasing the operational longevity of the LED device. It would have been obvious to one of ordinary skill in the art at the time of

the invention was made to modify Baldridge in view of Naruke et al. with the LED chip being completely embedded in plastic with the thickness of the light emitting diode device being less than thickness of the plastic ply in order to provide a quite thin a flexible product that is waterproof and safe, thereby increasing the operational longevity of the LED device.

Response to Arguments

15. The examiner incorporates by reference the "Response to Arguments" section of the prior Office actions mailed 04 May 2007 and 25 January 2008.

16. With respect to applicant's reply/argument that claim 19 was rejected under 35 U.S.C. 112, first paragraph, the examiner respectfully disagrees. The examiner inadvertently left out the statute for 35 U.S.C. 112, second paragraph. However, it is well known in the art of patent prosecution, that a 35 U.S.C. 112 rejection in view of indefinite limitations is a 35 U.S.C. 112, second paragraph. "Use" claims, when deemed improper, require both a 35 U.S.C § 101 and 35 U.S.C. § 112, second paragraph as set forth in the MPEP (see MPEP § 2173.05(q)). Therefore, it is deemed that enough a priori information was provide to applicant with respect to the "Use" claim, indefiniteness, and 35 U.S.C § 101 for applicant to provide a bonafide response since applicant amended claim 16 to overcome the indefinite (35 U.S.C. § 112) and 35 U.S.C § 101 rejections.

17. With respect to applicant's reply/argument with respect to the "product by process" recitation of claim 31, the examiner respectfully disagrees. As asserted above,

the limitation merely recites a product by process limitation. It is well settled that reciting how a product is made does not further limit the structure of the product itself. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted.) Therefore, the product by process interpretation of the claim is maintained, as well as the rejection asserted above, since it is clear that the claim is directed to the product not the process (see MPEP § 2173.05(p))

18. With respect to applicant's reply/argument that Baldridge's disclosure to laminated the indicating elements in a temperature range of 200°F – 325°F (93.33°C – 162.78°C) exceeds the maximum operating temperature range set forth in the light emitting diode specification provided by applicant and the implication that such a process would in some way/shape and/or form reduce the operational potential of the light emitting diode, the examiner respectfully disagrees. First, applicant recites "wherein the glass plies and the plastic ply with the one or more light emitting diodes are laminated at a temperature of about 100°C to 150°C" in claim 1. If Baldridge's disclosure to a temperature range of 200°F – 325°F (93.33°C – 162.78°C) could destroy the integrity of the light emitting diode, then so would applicant's recitation to "laminated at a temperature of about 100°C to 150°C". In addition, the light emitting diode

specification, provided by applicant, further asserts that a “Reflow Soldering Temperature” of 260°C for 5 seconds maximum is allowable. As asserted by the examiner, Baldridge does not disclose the lights being light emitting diodes and/or the light emitting diodes being mounted on a circuit board, however, Naruke et al. is cited for that limitation. Therefore since both applicant and Baldridge have disclosed the lamination step occurring at a temperature of about 100°C to 150°C and the specification of the light emitting diode provided by applicant allows a max temperature of 260°C for 5 seconds, Baldridge in view of Naruke et al. fully meet wherein the glass plies and the plastic ply with the one or more light emitting diodes are laminated at a temperature of about 100°C to 150°C“ given its broadest reasonable interpretation.

19. In response to applicant's reply/argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, there is some teaching, suggestion, or motivation to do so found in the references themselves. Naruke et al teach, as asserted above, a light body comprising light emitting elements (5) mounted on a circuit board (6; a circuit board inherently has a substrate and a conductive layer; Abstract) residing in a body of synthetic resin (synthetic resin predominantly being of the plastics family). Naruke et al. further teach, as asserted

above, the advantage of using such a configuration provides(1) a reduction in the power consumption of traditional lamp elements, thereby increasing the prolonged life of a power source (column 5, lines 44-47); and (2) the advantage that a lighting system may conform to the shape and size of the fitting face of the desired surface, thereby reducing the overall cost of manufacturing (column 5, lines 51-59). Therefore since Naruke et al. clearly provide a teaching, suggestion and motivation to combine, the examiner maintains that of ordinary skill in the art would have found it obvious to combine Naruke et al. with Baldridge.

20. In response to applicant's reply/argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the third ply providing a specific process and relationship between the pair of plies) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

21. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

22. Note: Applicant provided a specification sheet for light emitting diodes in the response filed 05 November 2007. If applicant chooses to continue to use the

specification for argument purposes, applicant is respectfully suggested to submit such information in compliance of CFR § 1.132.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN J. RALIS whose telephone number is (571)272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SJR
August 8, 2008